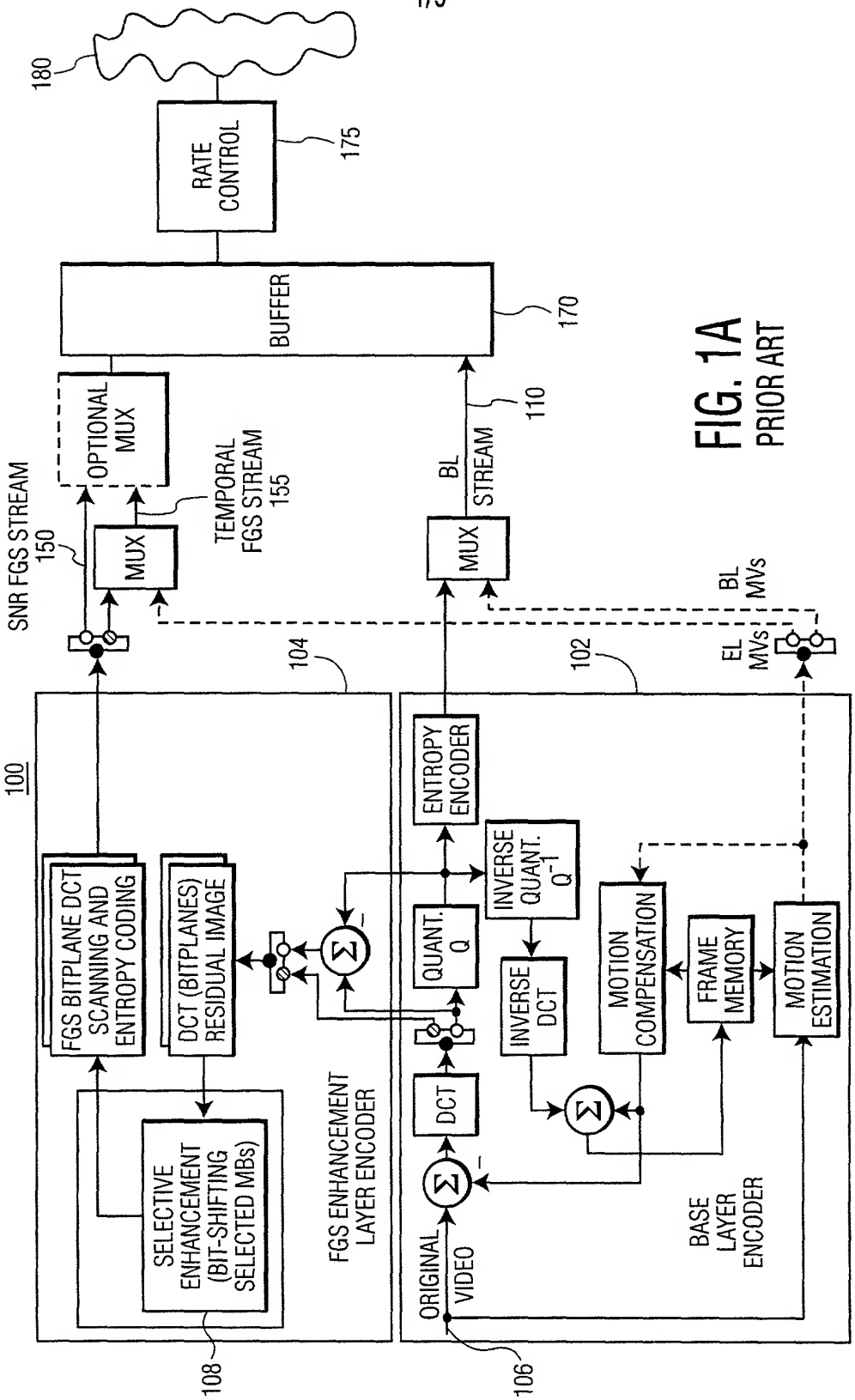

FIG. 1A
PRIOR ART

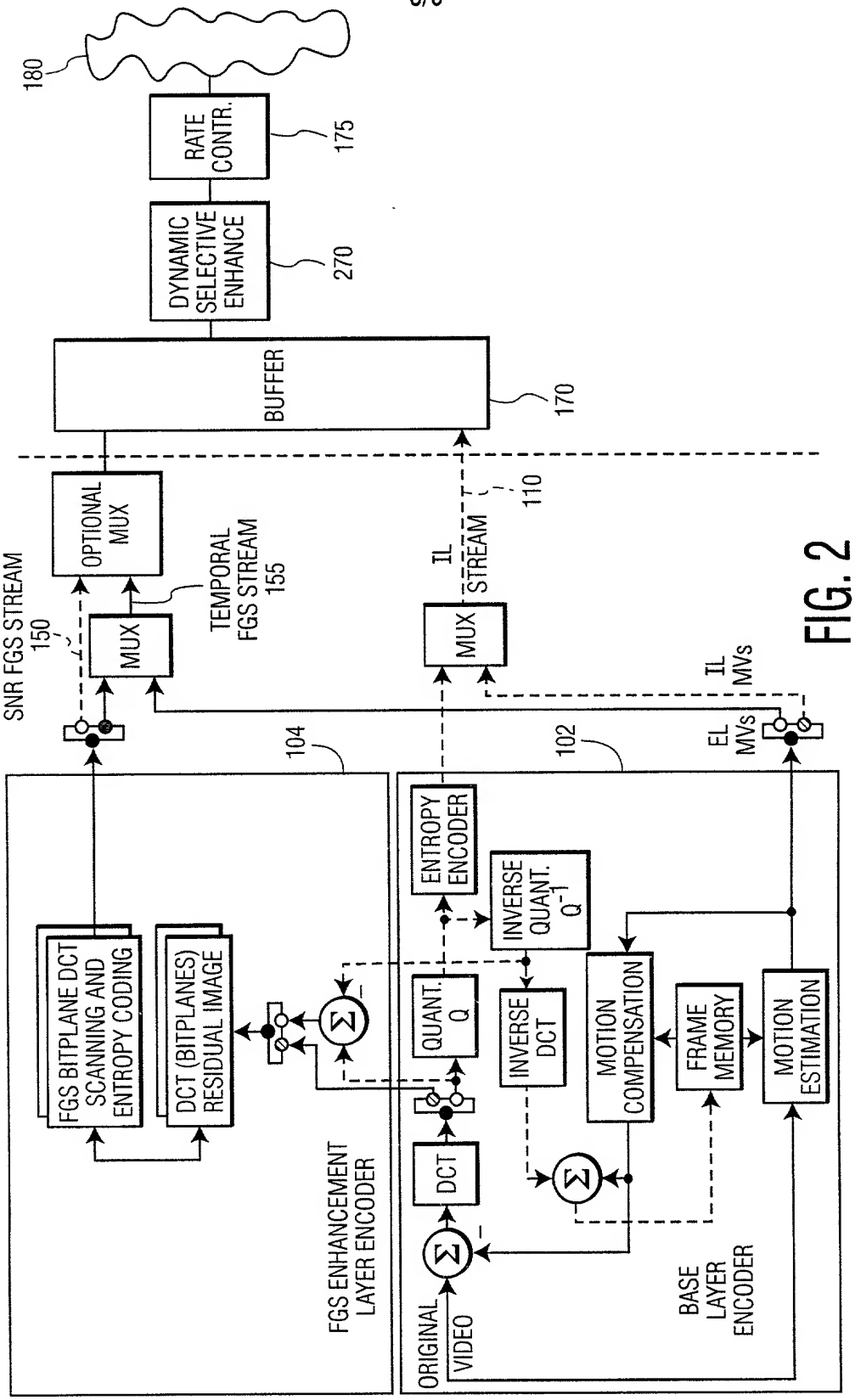
180
RATE CONTR.
175
DYNAMIC SELECTIVE ENHANCE
270
BUFFER
170
OPTIONAL MUX
SNR FGS STREAM 150
MUX
TEMPORAL FGS STREAM 155
IL STREAM
110
MUX
IL MVs
EL MVs
104
102
FGS BITPLANE DCT SCANNING AND ENTROPY CODING
DCT (BITPLANES) RESIDUAL IMAGE
ENTROPY ENCODER
INVERSE QUANT. Q^{-1}
QUANT. Q
INVERSE DCT
MOTION COMPENSATION
FRAME MEMORY
MOTION ESTIMATION
DCT
FGS ENHANCEMENT LAYER ENCODER
ORIGINAL VIDEO
BASE LAYER ENCODER

FIG. 2

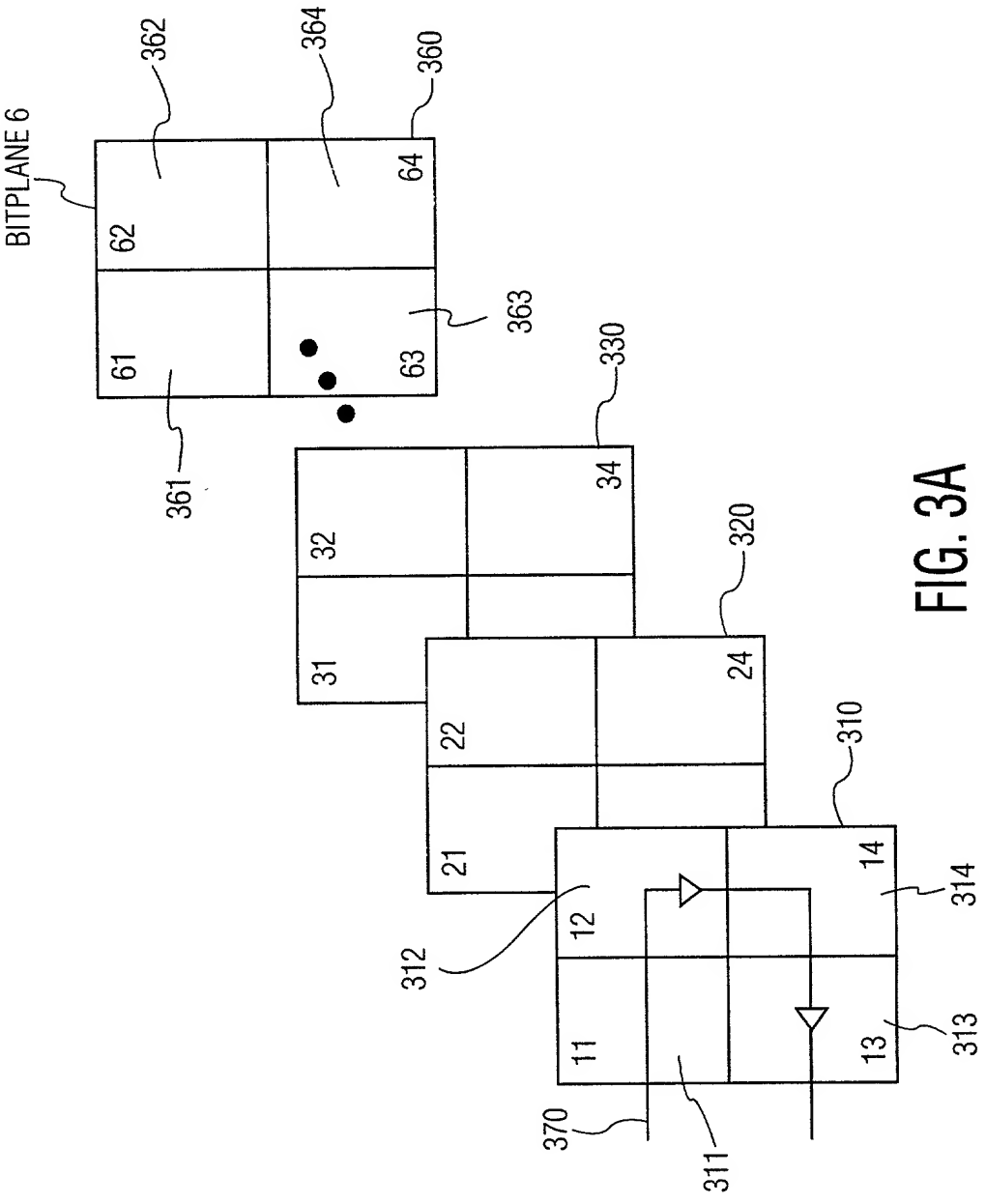
BITPLANE 6
362
364
360
64
62
61
63
363
361
330
34
32
31
320
24
22
21
310
14
314
12
312
11
13
313
370
311

FIG. 3A

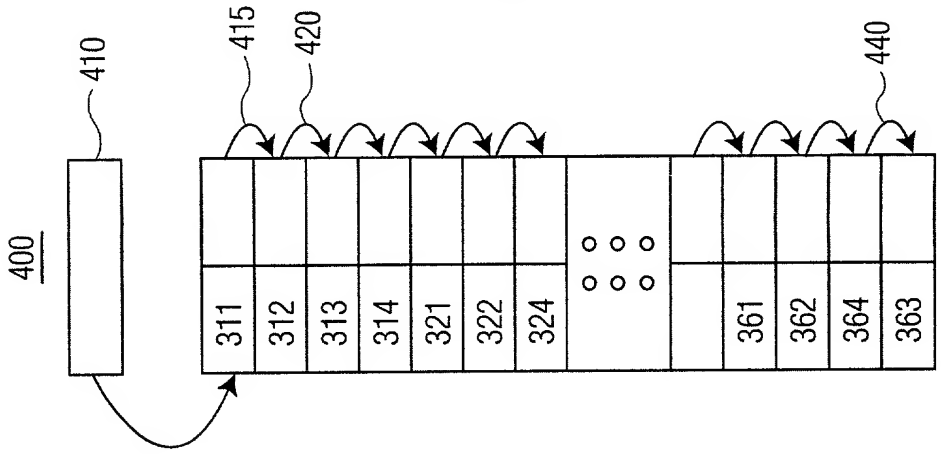

FIG. 4B

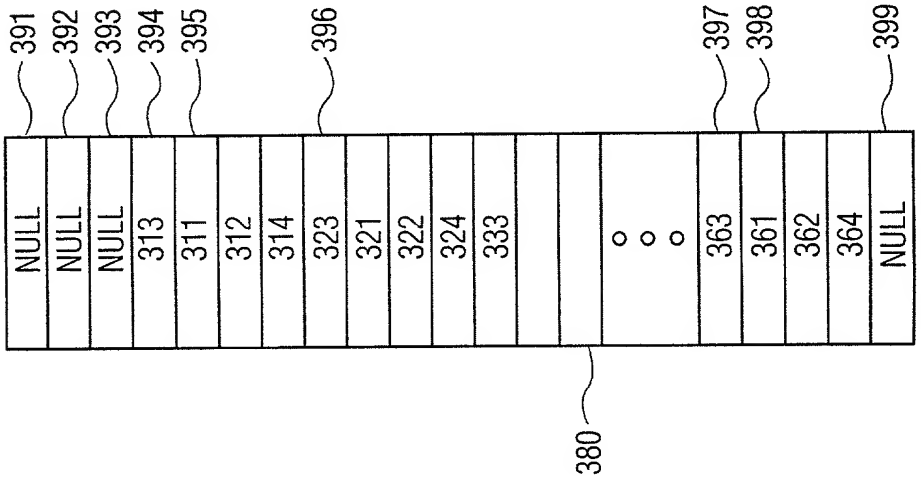

FIG. 4A

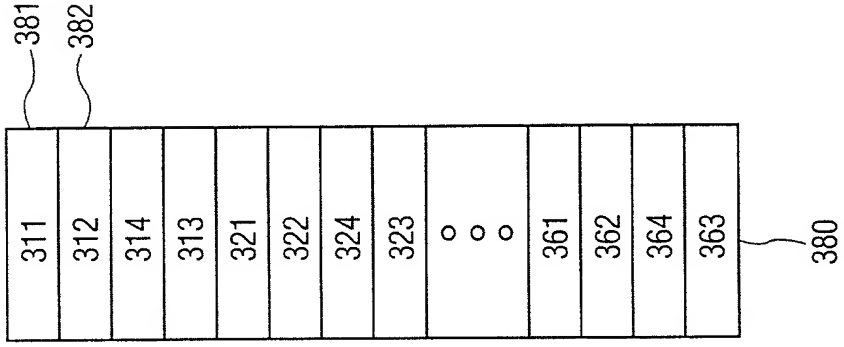

FIG. 3B

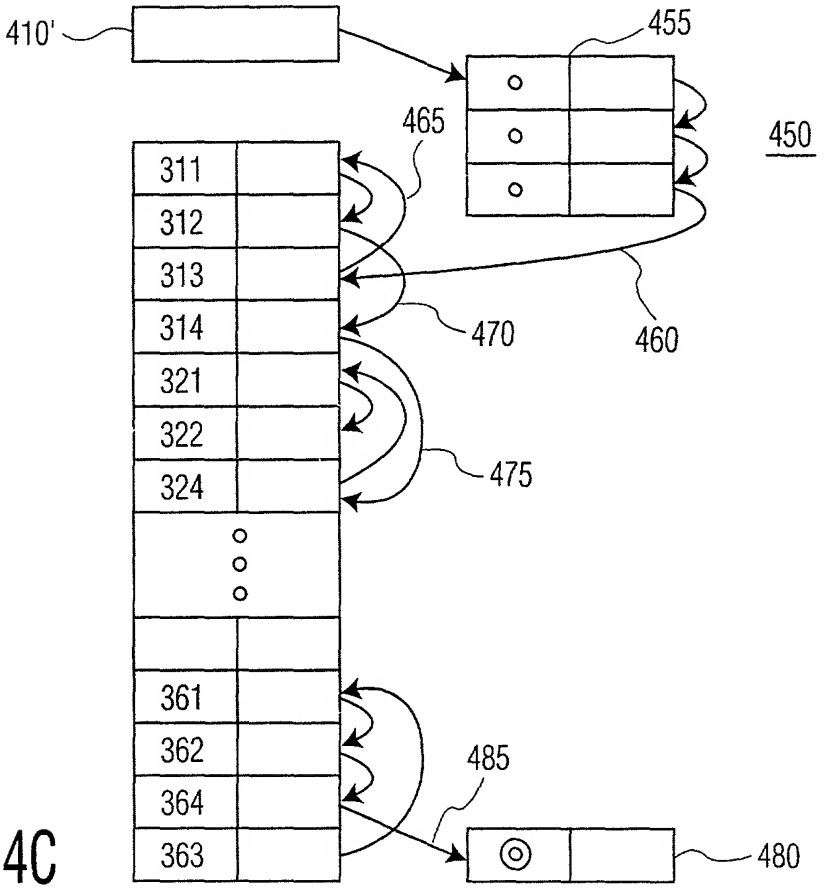
410'
455
450
465
311
312
313
314
321
322
324
361
362
364
363
470
460
475
485
480

FIG. 4C

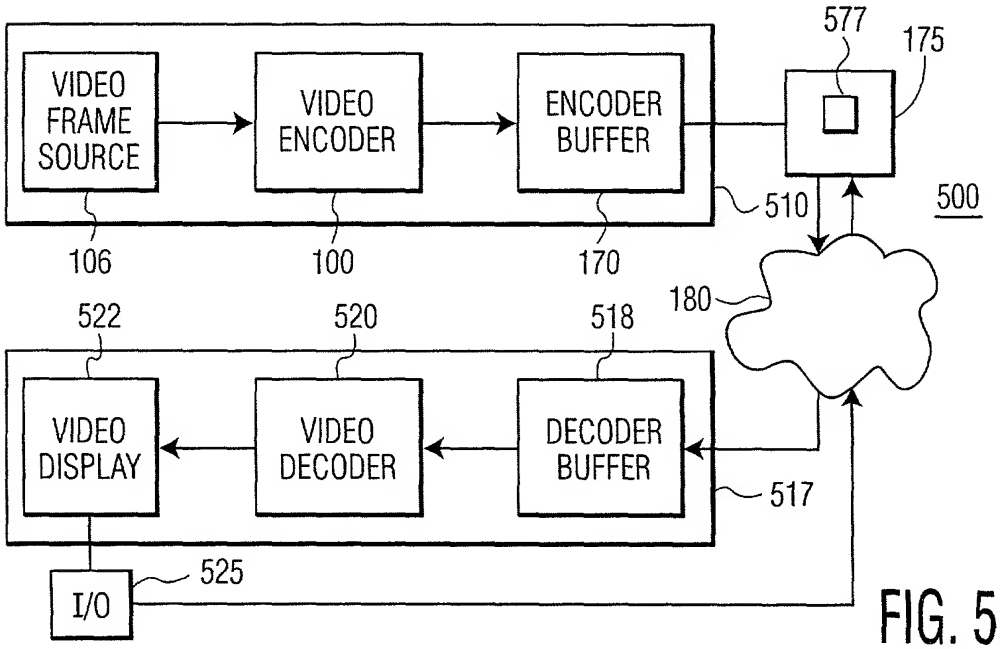
VIDEO FRAME SOURCE
VIDEO ENCODER
ENCODER BUFFER
577
175
510
500
106
100
170
180
522
520
518
VIDEO DISPLAY
VIDEO DECODER
DECODER BUFFER
517
525
I/O

FIG. 5

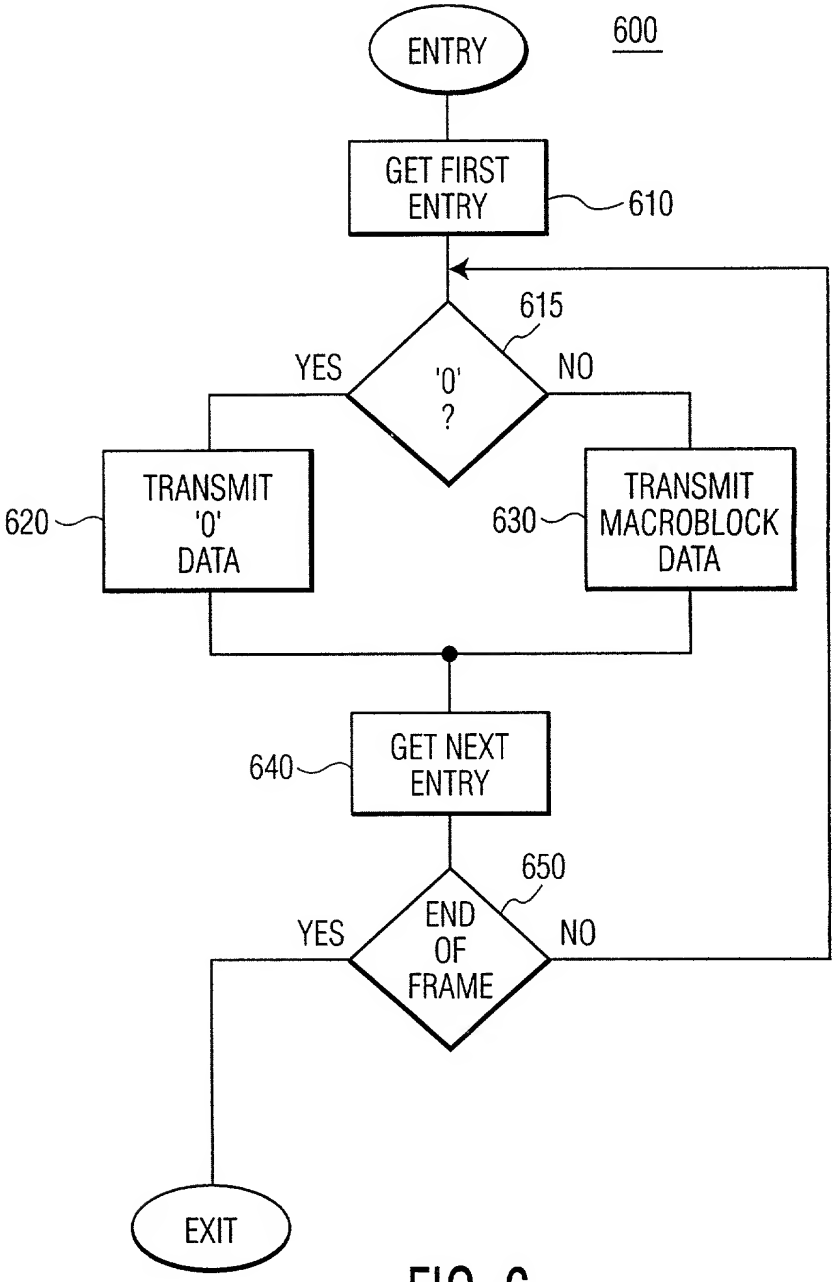
600
ENTRY
GET FIRST ENTRY
610
615
'0' ?
YES
NO
TRANSMIT '0' DATA
620
TRANSMIT MACROBLOCK DATA
630
GET NEXT ENTRY
640
650
END OF FRAME
YES
NO
EXIT

FIG. 6

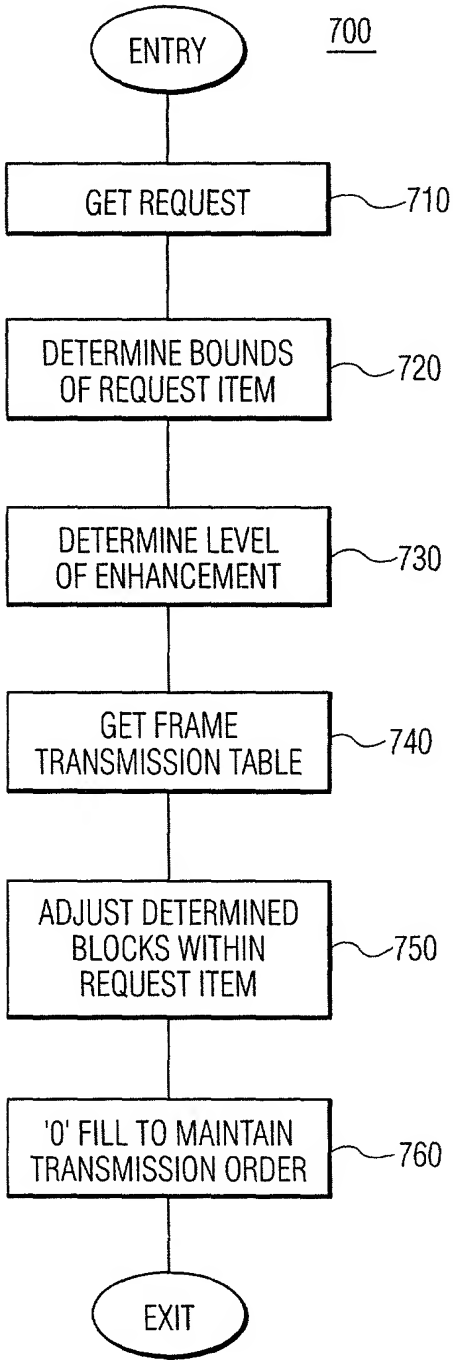
ENTRY
700
GET REQUEST
710
DETERMINE BOUNDS OF REQUEST ITEM
720
DETERMINE LEVEL OF ENHANCEMENT
730
GET FRAME TRANSMISSION TABLE
740
ADJUST DETERMINED BLOCKS WITHIN REQUEST ITEM
750
'0' FILL TO MAINTAIN TRANSMISSION ORDER
760
EXIT

FIG. 7

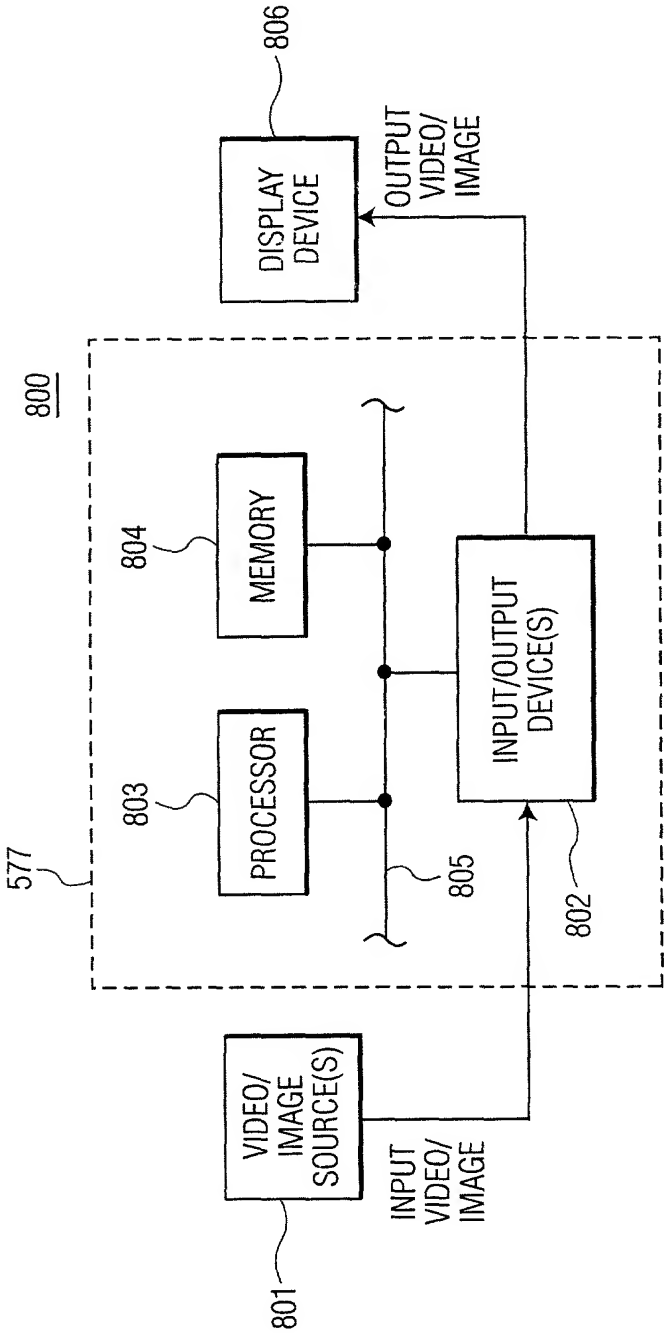
806
DISPLAY DEVICE
OUTPUT VIDEO/ IMAGE
800
804
MEMORY
803
PROCESSOR
577
805
INPUT/OUTPUT DEVICE(S)
802
VIDEO/ IMAGE SOURCE(S)
INPUT VIDEO/ IMAGE
801

FIG. 8